09/578507
HH10

WEST Search History

DATE: Wednesday, February 13, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L6	L5 not l4	37	L6
L5	l1 same l2 same l3	42	L5
L4	l1 with l2 with l3	5	L4
L3	plasmid or dna or (nucleic! acid)	148248	L3
L2	hydrophobic!	125060	L2
L1	lps! or lipopolsaccharide or endotoxin	12890	L1

END OF SEARCH HISTORY

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L6: Entry 34 of 37 File: EPAB Jul 7, 1994

PUB-NO: WO009414837A1
DOCUMENT-IDENTIFIER: WO 9414837 A1
TITLE: PURIFICATION OF PROTEINACEOUS MATERIAL

PUBN-DATE: July 7, 1994

INVENTOR-INFORMATION:
NAME COUNTRY
LEE, LIHSYNG S
MUTHUKUMAR, GANAPATHY
CZUBA, BARBARA
SHORR, ROBERT G L

ASSIGNEE-INFORMATION:
NAME COUNTRY
ENZON INC US

APPL-NO: US09312395
APPL-DATE: December 17, 1993

PRIORITY-DATA: US99377492A (December 21, 1992)

INT-CL (IPC): C07K 3/12; C07K 3/18; C07K 3/20; C07K 3/22; C07K 3/26; C07K 3/28; C12N 9/24
EUR-CL (EPC): C12N009/24

ABSTRACT:

Methods for the purification of proteinaceous materials, such as recombinant glucocerebrosidase (GCS) expressed in an insect cell culture that had been previously infected with a baculovirus carrying GCS-encoding nucleic acid, are disclosed. According to one embodiment, the medium is first clarified by being passed through a hollowfiber cartridge, then bacteria is filtered out. The filtered media is then concentrated with a cation exchange column, followed by hydrophobic interaction chromatography (HIC) purification. In alternative embodiments, the eluate from the cation exchange column and/or the HIC column is passed through an anion exchange column for removal of residual DNA, lipids and endotoxins. The purification methods of the present invention are quicker, cheaper, and capable of handling greater quantities and greater starting purities of conditioned media than processes previously utilized. The various methods of the present invention are also capable of providing commercial quantities of purified GCS suitable for therapeutic uses. Purified forms of GCS are also disclosed.

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L6: Entry 29 of 37 File: USPT Jul 13, 1993

US-PAT-NO: 5227368
DOCUMENT-IDENTIFIER: US 5227368 A

TITLE: Endotoxin-induced thrombosis factor which induces procoagulant activity in endothelial cells

DATE-ISSUED: July 13, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gerlach; Herwig	New York	NY		
Stern; David	Great Neck	NY		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
The Trustees of Columbia University in the City of New York	NY				02

APPL-NO: 7/ 486311 [PALM]
DATE FILED: February 28, 1990

INT-CL: [5] A61K 37/00, C07K 3/00, C07K 7/00, C07K 15/00

US-CL-ISSUED: 514/12; 530/324, 530/350, 530/351
US-CL-CURRENT: 514/12; 530/324, 530/350, 530/351

FIELD-OF-SEARCH: 514/12, 530/324, 530/350, 530/351, 530/387

PRIOR-ART-DISCLOSED:

OTHER PUBLICATIONS

Nawroth et al., J. Exp. Med., vol. 163, pp. 740-745, Mar. 1986.
Beutler et al., J. Exp. Med., vol. 163, pp. 984-995, May 1985.

ART-UNIT: 181
PRIMARY-EXAMINER: Cashion, Jr.; Merrell C.
ASSISTANT-EXAMINER: Davenport; A. M.
ATTY-AGENT-FIRM: White; John P.

ABSTRACT:

This invention provides a purified endotoxin-induced thrombosis factor, preferably an endotoxin-induced thrombosis factor characterized by an apparent molecular weight between about 50,000 and 65,000 daltons, more specifically about 55,000 daltons, on reduced and nonreduced SDS-polyacrylamide gels, by maximal recovery on elution from such gels at 52,000 to 58,000 daltons, by the ability to migrate as a single band on such gels, by the ability to precipitate in ammonium sulfate at saturations from 40% to 70%, by the ability to precipitate in polyethylene glycol at concentrations above 15%, by high hydrophobicity, by the ability to bind weakly to a hydroxylapatite column

and to a lentil lectin column, by the ability to bind tightly to a hydrophobic interaction resin and smear off with ethylene glycol, and by the ability to bind tightly to a reverse-phase column and elute more effectively with isopropranol than with acetonitrile, by the ability to bind to an anion exchange resin over a pH range from 5 to 10, by the inability to bind to a cation exchange resin, by resistance to acid denaturation up to 30 minutes, resistance to polymyxin, sensitivity to heating at 95.degree. C. for 30 minutes, and sensitivity to trypsin exposure for 24 hours. Another characteristic of a purified endotoxin-induced thrombosis factor that it maximally induces tissue factor after six to eight hours, and continues to induce tissue factor for up to sixty hours. This invention also provides purified nucleic acid molecules, antibodies, an inhibitor, an antagonist, pharmaceutical compositions, methods of treatment, and methods of preparation all directed to endotoxin-induced thrombosis factor.

4 Claims, 1 Drawing figures

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L6: Entry 7 of 37 File: USPT Jun 20, 2000

US-PAT-NO: 6077940
DOCUMENT-IDENTIFIER: US 6077940 A

TITLE: Free solution ligand interaction molecular separation method

DATE-ISSUED: June 20, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Reis; Robert Van	Redwood City	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Genentech, Inc.	South San Francisco	CA			02

APPL-NO: 8/ 998413 [PALM]
DATE FILED: December 24, 1997

INT-CL: [7] B01 D 61/00, A23 J 1/00, C07 K 16/00

US-CL-ISSUED: 530/412; 530/417, 530/387.1, 436/828, 436/161, 210/656, 210/635
US-CL-CURRENT: 530/412; 210/635, 210/656, 436/161, 436/828, 530/387.1, 530/417

FIELD-OF-SEARCH: 210/650, 210/652, 210/767, 210/512.1, 210/656, 210/635, 530/344, 530/387.1, 530/412, 530/417, 436/828, 436/161

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4762617	August 1988	Stevens et al.	
☐	4780210	October 1988	Hsia	210/638
☐	4960702	October 1990	Rice et al.	435/226
☐	5053334	October 1991	Arathoon et al.	435/226
☐	5356637	October 1994	Loosen et al.	426/7
☐	5490937	February 1996	van Reis	210/637
☐	5759404	June 1998	Ericsson et al.	210/638

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
104356	April 1984	EPX	
87/04169	July 1987	WOX	

OTHER PUBLICATIONS

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Nguyen, A.L., et al., "Synthesis and Applications of Water-Soluble Reactive Polymers for Purification and Immobilization of Biomolecules", Biotechnology and Bioengineering, vol. 34, pp. 1186-1190 (1989).
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Mattiasson, B., et al., "Ultrafiltration Affinity Purification, A Process for Large-Scale Biospecific Separations", Ultrafiltration Affinity Purification, pp. 99-114, (1989).
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Adamski-Medda, D., et al., "Biospecific Ultrafiltration: A Promising Purification Technique for Proteins", Journal of Membrane Science, vol. 9, pp. 337-342 (1981).
Mattiasson, B., et al., "Ultrafiltration Affinity Purification", Annals New York Academy of Science, vol. 413, pp. 307-309 (1983).

ART-UNIT: 167
PRIMARY-EXAMINER: MacMillan; Keith D.
ASSISTANT-EXAMINER: Ponnaluri; P.
ATTY-AGENT-FIRM: Conley; Deirdre L.

ABSTRACT:

The present invention is directed to novel methods for enhancing the ability to separate a species of interest from other different species present in a free solution mixture thereof which takes advantage of interactions that occur between soluble, small molecular weight ligands and the species of interest. The small molecular weight ligands employed in the present invention function to interact with a species of interest in a mixture of different species through either affinity, hydrophobic and/or ionic interactions, thereby altering the molecular weight, hydrodynamic volume and/or isoelectric point of the species of interest and rendering it separable from other component(s) in the mixture.

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L6: Entry 2 of 37 File: PGPB Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020001829
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020001829 A1

TITLE: Method for large scale plasmid purification

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lee, Ann L.	Lansdale	PA	US	
Sagar, Sangeetha	Lansdale	PA	US	

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
Merck & Co., Inc.	Rahway	NJ	US	02

APPL-NO: 09/ 799906 [PALM]
DATE FILED: March 6, 2001

RELATED-US-APPL-DATA:

RLAN	RLFD	RLPC	RLKC	RLAC
09799906	Mar 6, 2001	GRANTED	A1	US
08952428	Nov 7, 1997	UNKNOWN		US
6197553	Nov 7, 1997	ABANDONED		US
08952428	May 15, 1996	ABANDONED		WO
PCT/US96/07083	May 15, 1996			WO
PCT/US96/07083	May 19, 1995			US
08446118	May 19, 1995			US
08446118	Jul 15, 1994			US
08275571				

INT-CL: [07] C12 P 19/34, A01 N 43/04, A61 K 31/70, A61 K 39/00

US-CL-PUBLISHED: 435/91.1; 514/44, 424/184.1
US-CL-CURRENT: 435/91.1; 424/184.1, 514/44

REPRESENTATIVE-FIGURES: NONE

ABSTRACT:

A process is disclosed for the large scale isolation and purification of plasmid DNA from large scale microbial fermentations. All three forms of plasmid DNA; supercoil (form I), nicked or relaxed circle (form II), and linearized (form III), are individually isolatable using the disclosed process. Highly purified DNA suitable for inclusion in a pharmaceutical composition is provided by the disclosed process.

RELATED APPLICATION

[0001] This is a continuation-in-part application of U.S. Ser. No. 08/446,118 filed May 19, 1995.

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L13: Entry 2 of 3 File: PGPB Oct 25, 2001

PGPUB-DOCUMENT-NUMBER: 20010034435
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010034435 A1

TITLE: Process and equipment for plasmid purification

PUBLICATION-DATE: October 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nochumson, Samuel	The Woodlands	TX	US	
Durland, Ross	The Woodlands	TX	US	
Yu-Speight, Audrey	The Woodlands	TX	US	
Welp, John	Willis	TX	US	
Wu, Kuoewi	Houston	TX	US	
Hayes, Rexford	Houston	TX	US	

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
Valentis, Inc.				02

APPL-NO: 09/ 774284 [PALM]
DATE FILED: January 29, 2001

RELATED-US-APPL-DATA:

RLAN	RLFD	RLPC	RLKC	RLAC
09774284	Jan 29, 2001	ABANDONED	A1	US
08887673	Jul 3, 1997			US
60022157	Jul 19, 1996			

INT-CL: [07] C07 H 21/04, C12 N 1/08

US-CL-PUBLISHED: 536/23.1; 435/270
US-CL-CURRENT: 536/23.1; 435/270

REPRESENTATIVE-FIGURES: NONE

ABSTRACT:

A scalable alkaline lysis process, including procedures and devices for the isolation of large quantities (grams and kilograms) of plasmid DNA from recombinant E. coli cells. Effective, controllable, and economical operation, and consistent low level of host chromosomal DNA in the final plasmid product. Involves a series of new unit operations and devices for cell resuspension, cell lysis, and neutralization.

RELATED APPLICATIONS

[0001] This application claims priority to co-pending U.S. patent application Ser. No.

08/887,673, filed Jul. 3, 1997, which in turn, claims priority to U.S. Provisional Patent Application Ser. No. 60/022,157, filed Jul. 19, 1996. Both applications are hereby incorporated by reference as if fully set forth herein.

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L13: Entry 3 of 3 File: USPT Mar 6, 2001

US-PAT-NO: 6197553
DOCUMENT-IDENTIFIER: US 6197553 B1

TITLE: Method for large scale plasmid purification

DATE-ISSUED: March 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lee; Ann L	Lansdale	PA		
Sagar; Sangeetha	Lansdale	PA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Merck & Co., Inc.	Rahway	NJ			02

APPL-NO: 8/ 952428 [PALM]
DATE FILED: November 7, 1997

PARENT-CASE:
RELATED APPLICATION This is a 35 U.S.C. .sctn.371 U.S. national application of PCT/US96/07083, filed May 15, 1996, which is a continuation-in-part of U.S. application Ser. No. 08/446,118, filed May 19, 1995, now abandoned, which is a continuation-in-part of U.S. application Ser. No. 08/275,571, filed Jul. 15, 1994, now abandoned.

INT-CL: [7] C12 P 19/34, C07 H 21/00

US-CL-ISSUED: 435/91.1; 435/320.1, 435/259, 435/306.1, 536/25.4, 536/23.1, 424/184.1, 514/44
US-CL-CURRENT: 435/91.1; 424/184.1, 435/259, 435/306.1, 435/320.1, 514/44, 536/23.1, 536/25.4

FIELD-OF-SEARCH: 435/91.1, 435/320.1, 435/259, 435/306.1, 536/25.4, 536/23.1, 424/184.1, 514/44

PRIOR-ART-DISCLOSED:

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3928642	December 1975	Hubert et al.	426/521
☐	4830969	May 1989	Holmes	435/259
☐	5256549	October 1993	Urdea	435/91

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO91/06309	May 1991	WOX	
WO93/24640	December 1993	WOX	
WO95/07995	March 1995	WOX	
WO96/26558	February 1996	WOX	
WO96/36706	November 1996	WOX	

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ART-UNIT: 161
PRIMARY-EXAMINER: Prats; Francisco
ATTY-AGENT-FIRM: Hand; J. Mark Tribble; Jack L.

ABSTRACT:

A process is disclosed for the large scale isolation and purification of plasmid DNA from large scale microbial fermentations. The process exploits a rapid heating method to induce cell lysis and precipitate genomic DNA, proteins and other debris while keeping the plasmid in solution. Suspending the microbial cells in buffer and then heating the suspension to about 70-100.degree. C. in a flow-through heat exchanger results in excellent lysis. Continuous flow or batch-wise centrifugation of the lysate effects a pellet that contains the cell debris, protein and most of the genomic DNA while the plasmid remains in the supernatant. This invention offers a number of advantages including higher product recovery than by chemical lyses, inactivation of Dnases, operational simplicity and scaleability.

16 Claims, 9 Drawing figures